Samuel **Choi**

Engineer 2, EIT

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Work Experience

Anser Advisory
Santa Ana, CA

Engineer 2
June 2018 - PRESENT

- **Southern California Edison: Distribution Automation**
  - Shadowed Automation Hotline to learn End Point Tests procedures and how to assist field crew.
    - Assisted in committing changes to devices in DMS/DDS, updating NCMM/IDT with proper information, and troubleshooting failed devices.
  - Assisted Distribution Automation with processing new and backlogged PCC forms. Duties include: committing new PCC's into DMS, troubleshooting non responsive PCC's, and making adjustments to existing PCC's as necessary.
- **Southern California Edison: Remote Capacitor Inspections**
  - Developed a capacitor health detection program that remotely identifies failed and potentially failed capacitors.
    - Joint effort with Distribution Apparatus to improve existing capacitor inspection methods. Remote detection of failed capacitors decreases time and costs associated with yearly inspections.
    - Tools developed with VBA and SAS that finds isolated switching events for a capacitor along with associated circuit MVAR change.
  - Provide troubleshooting analysis for failed/new capacitors for the DVVC team as well as field technicians.
- **Southern California Edison: Distribution Volt/VAR Control (DVVC)**
  - Responsible for developing voltage settings for DVVC enabled substations.
    - Voltage thresholds are developed based on substation load profile, capacitor voltage rise values, and customer meter information.
    - Responsible for performing re-analysis of settings in the case of customer side voltage/var issues.
  - Responsible for providing engineering analysis on the VAR to WATT ratio on the distribution system. This ratio is beneficial for VAR planning.
  - Performed CYME studies for calculating SCD, voltage rise values, and load flow analysis. Utilized these studies in engineering settings for DVVC implementation.

Education

University of California, Riverside
Riverside, CA

B.S. Electrical Engineering
2014 - 2018

Technical Skills

Professional Certifications EIT (License #169555), OSHA 10

Programming Languages Visual Basic for Applications (VBA), Python, SAS, SQL, MATLAB, C/C++

Software OMS, DMS, IDT, NCMM, SAP, CYME 8.2, Microsoft Office Suite, Adobe Creative Suite

Projects

Remote Capacitor Inspections
SCE: Distribution Automation

Capacitor Health Algorithm
Jan 2019 - Present

- This capacitor health algorithm was developed jointly by Distribution Automation and Distribution Apparatus. Remote capacitor inspections are beneficial because they allow for constant monitoring of capacitor banks, can reduce man hours needed for inspecting capacitors, and will allow for timely repairs of failed capacitors.
- This algorithm takes in information such as circuit MVAR readings and capacitor switching events and determines the functionality of the capacitor based on the delta MVAR and cap size. Any abnormal MVAR change detected at the time of switching allows for diagnosis of capacitor health.
- Originally implemented in Excel (VBA), it has now been implemented on SAS and is continuously being fine tuned with the help of Apparatus.

Autonomous Ground Target Vehicle
UCR

Senior Design Project
Oct 2017 - Mar 2018

- Autonomous ground vehicle produced as a proof of concept for NAVSEA. This vehicle is intended to be used as a target range assistant that autonomously navigates to random GPS coordinates. Once arrived at a way point, a target pops up and allows for the user to attempt to hit it.